

## CLAIMS

1. A method for detecting or identifying an action of a chemical species A to a substance containing DNA or RNA comprising using the chemical species, which can recognize a base sequence of DNA, represented by the general formula (I):

B-L-A (I)

wherein B is a chemical structure containing non-natural bases which can recognize a base sequence of DNA, A is a chemical structure having an interaction with DNA, and L is a linker which can bind together chemical structures of A and B.

2. The method according to claim 1, for detecting or identifying an action of a chemical species A to a substance containing DNA or RNA comprising providing the compound represented by the general formula (I), which can recognize a base sequence of DNA or RNA in each well of a plate consisting of a plurality of wells, introducing the substance containing DNA or RNA into each well of said plate, reacting completely the compound represented by the general formula (I) with the substance containing DNA or RNA, and assaying a state of the substance containing DNA or RNA.

3. The method according to claim 2, wherein the compound represented by the general formula (I) present in each well is the compound which can recognize a difference of the base sequence of DNA or RNA of the substance containing DNA or RNA and the substance containing DNA or RNA which is introduced into each well is the same substance.

4. The method according to claim 2, wherein the compound represented by

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the general formula (I) present in each well is the compound which can recognize specific one type of base sequence of DNA or RNA of the substance containing DNA or RNA, and the substance containing DNA or RNA which is introduced into each well is the different substance.

5. The method according to any of claims 1-4, wherein the compound represented by the general formula (I) is immobilized in the well.

6. The method according to any of claims 1-5, wherein the chemical structure containing non-natural bases, which can recognize a base sequence of DNA or RNA, is the chemical structure which can recognize at least 2 successive bases in natural DNA or RNA of the substance containing DNA or RNA.

7. The method according to any of claims 1-6, wherein the chemical structure containing non-natural bases, which can recognize a base sequence of DNA, is the chemical structure derived from pyrrole and/or imidazole optionally having substituents.

8. The method according to claim 7, wherein the chemical structure derived from pyrrole and/or imidazole optionally having substituents is located in a main chain or is pendent from a main chain.

9. The method according to any of claims 1-8, wherein A having the chemical structure interacting with DNA is a chemical structure of an antitumor agent.

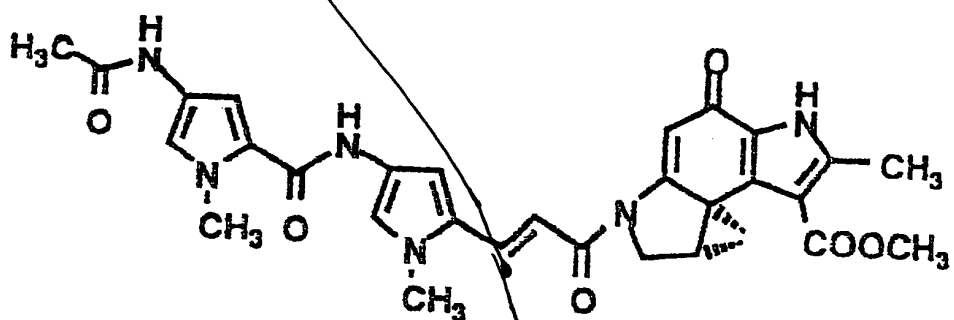
10. The method according to claim 9, wherein the antitumor agent is an alkylating agent.

11. The method according to claim 10, wherein the alkylating agent has a chemical structure having a cyclopropane ring.

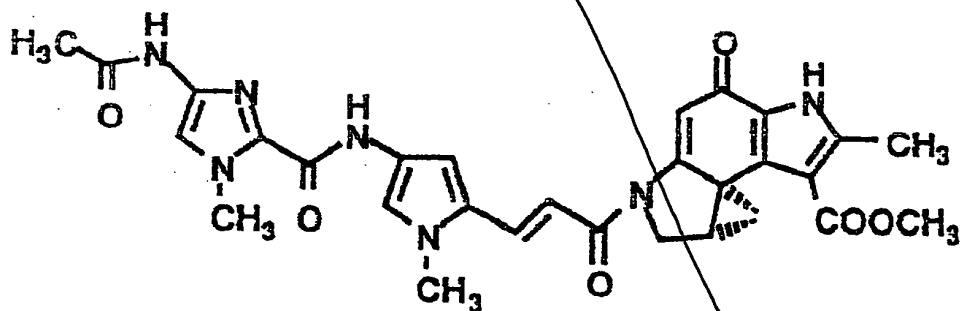
12. The method according to any of claims 1-11, wherein the linker, which

can link together the chemical structures of A and B, has a chemical structure containing a vinyl group.

13. The method according to any of claims 7-12, wherein the compound represented by the general formula (I) is the compound represented by the formula:



or



14. The method according to any of claims 1-13, wherein the substance containing DNA or RNA is a cell.

15. The method according to claim 14, wherein the cell is a tumor cell.

16. The method according to any of claims 2-15, wherein a mean for assaying a state of the substance containing DNA or RNA is a method for detecting survival or death of the substance.

17. The method according to claim 16, wherein the method for detecting

survival or death of the substance ~~is~~ coloring of the substance.

18. A kit for detecting or identifying an action of a chemical species A to a substance containing DNA or RNA to perform the method according to any of claims 1-17.

19. The kit according to claim 18 comprising a chemical species, which can recognize a base sequence of DNA, represented by the general formula (I):

B-L-A (I)

wherein B is a chemical structure containing non-natural bases which can recognize a base sequence of DNA, A is a chemical structure having an interaction with DNA, and L is a linker which can bind together chemical structures of A and B;

and equipment or reagents for assaying a state of the substance containing DNA or RNA after treatment.

20. A plate consisting of a plurality of wells comprising presence of a chemical species, which can recognize a base sequence of DNA, represented by the general formula (I):

B-L-A (I)

wherein B is a chemical structure containing non-natural bases which can recognize a base sequence of DNA, A is a chemical structure having an interaction with DNA, and L is a linker which can bind together chemical structures of A and B;

in each well in the plate consisting of a plurality of wells.

21. The plate according to claim 20, comprising a plate for detecting or identifying an action of a chemical species A to a substance containing DNA or RNA.

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